

### STATUS OF THE CLAIMS

Claims 1-18 were originally filed in this patent application. In this amendment, claim 2 has been amended. In the pending office action, claims 1, 4, 6, 8, 10-12 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by Whaley *et al.* and claims 2-3, 5, 7, 9, 13-14 and 16-18 under 35 U.S.C. §103(a) as being obvious over Whaley *et al.* in view of Choi *et al.* In a previous amendment claims 2, 7, 13 and 14 were cancelled. Claims 1, 3-6, 8-12 and 15-18 are currently pending.

### REMARKS

#### Rejection of claim 2 under 35 U.S.C. §112

The Examiner rejected claim 2 under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, the claim was corrected to depend on claim 1 instead of cancelled claim 2.

#### Rejection of claims 1, 3-6, 8-12 and 15-18 under 35 U.S.C. §103(a)

The Examiner rejected claims 1, 3-6, 8-12 and 15-18 under 35 U.S.C. §103(a) as being obvious over Whaley *et al.*, "Compositional Pointer and Escape Analysis for Java Programs" in view of Choi *et al.*, "Escape Analysis for Java". Applicant traverses the Examiner's finding of obviousness of the claims as amended.

#### Claim 1

Claim 1 was previously amended to recite the additional limitations of former claim 2. In addition claim 1 was amended to more explicitly show that the compiler in

claim 1 is in a partial compilation environment. In claim 1, the escape mechanism is operating on the first compilation unit prior to compiling the second compilation unit. The cited art does not teach or suggest claim 1 as amended. While it was suggested by Choi that his escape analysis could be applied to a dynamic compiler, Choi is concerned with escape analysis for objects whose lifetimes do not escape from their creating method. Nothing in Choi teaches or suggests to apply escape analysis to allocate a method to the stack that escapes the creating method. In Choi, no allocation is done without a knowledge of the lifetimes of the object. (See page 4 of the application for further characterization and contrast of the Choi reference) Applicants believe claim 1 as amended is now in condition for allowance. Reconsideration is respectfully requested.

Claims 2, 7 and 13-14

Claims 2, 7 and 13-14 have been cancelled.

Claim 3

Claim 3 depends on independent claim 1 amended as described above, which is allowable for the reasons given above. As a result, claim 3 is allowable as depending on an allowable independent claim. Further, with regard to claim 3, the Examiner states that Choi at section 2.1 and proposition 2.3 teaches "marking a new instruction ... based on information .. that are visible in a specified classpath." Applicant can find no such teaching in the cited text. A specified classpath can be one specified by the user as described on page 20 of the specification. Applicants believe claim 3 is in condition for allowance. Reconsideration is respectfully requested

Claim 4

Claim 4 was previously amended to become an independent claim with the limitations of former claim 1. Claim 4 was also amended to include the limitation of explicitly citing a partial compilation environment. Therefore claim 4 is allowable over Whaley for the reasons given above. Further, with regard to claim 4, the Examiner states that Whaley at section 1.1 and 7.2 teaches "a code generator that creates two versions of code for a selected object method." Applicant can find no such teaching in the cited text. The cited sections describe escape analysis and the compiler allocating to the stack or the heap, but there is no discussion concerning the code generator (compiler) making two versions of code. The first sentence of paragraph 7.2 states that "an object ... can be allocated on the stack instead of the heap." This suggests that the two versions of code are an either-or selection - both versions are not generated. Therefore, claim 4 as amended is now in condition for allowance. Reconsideration is respectfully requested.

Claim 5

Claim 5 was previously amended in the same manner as described for claim 1 and the rationale for claim 1 is incorporated here. As a result, claim 5 is allowable under the same rationale as set forth for claim 1.

Claim 6

Claim 6 was previously amended in a similar manner as described for claim 1. Claim 6 has been amended herein to recite the additional limitations of former claim 7. In addition claim 1 was amended to more explicitly show that the compiler in claim 6 is in a partial compilation environment. In claim 6, the escape mechanism is functioning on the first compilation unit prior to compiling the second compilation unit. The cited art does not teach or suggest claim 6 as amended. Further, with regard to claim 7, the

Examiner states that Choi at section 2.1 and proposition 2.3 teaches "marking a new instruction ... based on information .. that are visible in a specified classpath." Applicant can find no such teaching in the cited text. A specified classpath can be one specified by the user as described on page 20 of the specification. Applicants believe claim 6 as amended is now in condition for allowance. Reconsideration is respectfully requested.

#### Claim 8

Claim 8 depends on independent claim 6, which is allowable for the reasons given above. As a result, claim 8 is allowable as depending on an allowable independent claim. Further, with regard to claim 8, the Examiner states that Whaley at section 1.1 and 7.2 teaches "a code generator that creates two versions of code for a selected object method." Applicant can find no such teaching in the cited text. There is no discussion concerning the code generator making two versions of code and selecting at run-time one of the two versions to execute. Whaley does not teach or suggest these limitations in claim 8. Reconsideration is respectfully requested.

#### Claim 9

With regard to claim 9, the Examiner states that Whaley at section 1.1 and 7.2 teaches "a code generator that creates two versions of code for a selected object method." Applicant can find no such teaching in the cited text. There is no discussion concerning the code generator making two versions of code and selecting at run-time one of the two versions to execute. Whaley does not teach or suggest these limitations in claim 9. Reconsideration is respectfully requested.

Claim 10

Claim 10 was previously amended in the same manner as described for claim 1 and the rationale for claim 1 is incorporated here. As a result, claim 10 is allowable under the same rationale as set forth for claim 1. Applicants believe claim 10 as amended is now in condition for allowance. Reconsideration is respectfully requested.

Claims 11-12 and 15

Claims 11-12 and 15 depend on independent claim 10 amended as described above, which is allowable for the reasons given above. As a result, claims 11-12 and 15 are allowable as depending on an allowable independent claim. Further, with regard to claim 15, the rationale for claim 4 is incorporated here, and claim 15 is also allowable for the reasons described with regard to claim 4.

Claim 16

With regard to claim 16, the Examiner states that Whaley at section 1.1 and 7.2 teaches "a code generator that creates two versions of code for a selected object method." Applicant can find no such teaching in the cited text. There is no discussion concerning the code generator making two versions of code and a run-time code selector that selects one of the two versions to execute. Whaley does not teach or suggest these limitations in claim 16. Reconsideration is respectfully requested.

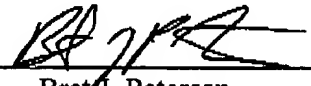
Claims 17-18

Claims 17-18 depend on independent claim 16, which is allowable for the reasons given above. As a result, claims 17-18 are allowable as depending on an allowable independent claim.

Conclusion

In summary, none of the cited prior art, either alone or in combination, teach, support, or suggest the unique combination of features in applicant's claims presently on file. Therefore, applicant respectfully asserts that all of applicant's claims are allowable. Such allowance at an early date is respectfully requested. The Examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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